

and may have an important bearing on their food and migrations.

- (δ) It appears to be at its maximum in spring and autumn, when the waters swarm with embryonic forms.

*On the Priority of Euplœa Castelnaui of Felder over Euplœa phœbus.* By W. L. DISTANT.

Under the above heading, in the last issue of this magazine (*antè*, p. 73), Mr. Butler has expressed himself dissatisfied that in my 'Rhopalocera Malayana' I have used Felder's name for a species of *Euplœa* in preference to one proposed by himself.

My reason for this arrangement was simply that Felder's publication bore date 1865, whilst Butler's description was published in 1866.

I was aware that Mr. Butler had preferred and published a charge that Felder's publication was antedated, and also that an explanation had been given by the Felders that the work could be obtained with uncoloured plates at their date of publication, though the coloured copies were not ready at that time. This statement I at least felt bound to accept; and I was under the impression that, from Mr. Butler having since published 1865 as the date of Felder's descriptions of *Euplœa*, he had seen his way to withdraw from so serious a charge.

That accusation amounts, in the first instance, to one of literary mendacity, and, secondly, of publishing a designedly false statement in support of the same. This I cannot credit; and therefore I could not write my 'Rhopalocera Malayana' as though I did. It is only natural for Mr. Butler to regret the loss of some of his specific names; but he must pardon me for saying that I think he is ill-advised in again making so serious a charge against the reputation of a lepidopterist who, though no longer here to reply, has still left a memory among friends and colleagues which, so far as I can learn, leaves no room for stain.

If, however, I write with pleasure that I accept both Felder's original date and subsequent explanation, it is with regret that I find an inclination on the part of my friend Mr. Butler to think that in so doing I have in some way accused him of "a childish form of egotism." I am also sorry to have to notice the statement (probably in haste) made by Mr. Butler that, when I wrote that he had subsequently used Felder's date, I was "well aware" that in so doing he "had taken the date from the titlepage, either failing for the time being to recall the fact of its inaccuracy, or inserting it between inverted commas" to show his disbelief in it. I was aware of nothing of the kind when I wrote my first part, which was in proof when I mentioned my views to him. I was then told that the dates were either in inverted commas or had been altered by the Secretary of the Linnean Society. I found on reference that the inverted commas were non-existent; and I could not, when writing my part, first make a charge against the Felders on the authority of Butler, and then explain away his apparent withdrawal of the same by a somewhat invidious reference to the Secretary of the Linnean Society.

I can only, then, again assure my friend Mr. Butler that, because I do not support his charge against the Felders, I do not necessarily bring one against him; and he will probably agree with me that the whole of this unsavoury discussion is detrimental to the cause of even descriptive entomology, and affords further proof of the injury done to the same by personal competition.

*On some Experiments in Hybridization between different Species of Echinoidea.* By M. R. KÖHLER.

Experiments on the hybridization of Echinoderms have been hitherto but few in number. In 1873 M. Marion published ('Comptes Rendus,' April 14) an account of fecundations effected between *Strongylocentrotus lividus* and *Sphærechinus granularis*, which resulted in the production of perfectly developed Plutei. A year later Agassiz announced, in the 'Archives de Zoologie Expérimentale,' a case of hybridization between two species of the genus *Asteracanthion*, in which the larvæ attained the stage of Bipinnaria. At the suggestion of M. Marion I have resumed these experiments in the laboratory of marine zoology at Marseilles; and their results possess some importance in connexion with the physiology of the species, which was, indeed, indicated by M. Marion in his note presented to the Academy. These new experiments in hybridization have been extended to several species of regular and irregular sea-urchins. I cannot here give a complete analysis of these fecundations, which will be studied in detail in my memoir on the Echinoidea of the shores of Provence. I shall therefore content myself with indicating the definitive results at which I have arrived.

In March and April the products of the genital glands in most of the species of Marseilles have generally arrived at maturity; nevertheless it is not unusual to meet with individuals of which the ovules or spermatozooids, still immature, are unfit for any attempt at fecundation. It is therefore indispensable to precede each experiment by a microscopic observation. It is equally important to make, in parallelism with each crossed fecundation, a direct fecundation under the same conditions, and with products belonging to the same individuals, for the purpose of arriving at comparable results, both as to the state of the larva and the time it takes to arrive at a definite stage in both cases.

The following is a list of the experiments made, with the results obtained in the most successful fecundations:—

*Strongylocentrotus lividus* ♀ and *Sphærechinus granularis* ♂.—Pluteus regularly and perfectly developed.

*Id.* and *Psammechinus pulchellus* ♂.—Pluteus always well developed.

*Id.* and *Dorocidaris papillata* ♂.—The ova, of which a very small number were fecundated, did not pass the blastula stage. (It is true the only living *Dorocidaris* I had at my disposal had been captured some time, and its spermatozooids were not very active.)

*Strongylocentrotus* ♀ and *Spatangus purpureus* ♂.—Many negative experiments; fecundation, however, is possible, but the fecun-